

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Sheet

1

of

6

Complete if Known

Application Number	10/816,432
Filing Date	March 31, 2004
First Named Inventor	RAVKIN et al.
Art Unit	1746
Examiner Name	Bibi S. Carrillo
Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
<i>HC</i>	A1	2002/0020622 A1	02/21/02	Hanson et al.	
	B1	2002/0121290 A1	09/05/02	Tang et al.	
	C1	2002/0125212 A1	09/12/02	Mertens et al.	
	D1	2004/0060581 A1	04/01/04	Garcia et al.	
	E1	2004/0136494 A1	07/15/04	Lof et al.	
<i>HC</i>	F1	2004/0178060 A1	09/16/04	Ravkin et al.	
	G1	5,271,774	12/21/93	Leenaars et al.	<i>previously cited.</i>
<i>HC</i>	H1	5,343,234	8/30/94	Kuehnle	
<i>HC</i>	I1	5,361,449	11/08/94	Akimoto	
<i>HC</i>	J1	5,472,502	12/95	Batchelder	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No. ¹	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K1	EP 0 905 746 A1	3/31/99	Interniversitat Micro-Elektronica Centrum VZW	<i>previously cited.</i>	<input type="checkbox"/>
	L1	EP 0 905 747 A1	3/31/99	Interniversitat Micro-Elektronica Centrum VZW		<input type="checkbox"/>
	M1	WO 99/16109 A1	4/1/99	Interniversitat Micro-Elektronica Centrum VZW		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			
	N1	J.A. Britten, "A moving-zone Marangoni drying process for critical cleaning and wet processing," October, 1997, <i>Solid State Technology</i> <i>previously cited.</i>			
<i>HC</i>	O1	OWA et al. "Immersion lithography; its potential performance and issues", Proceedings of the SPIE, SPIE, Bellingham, VA, US, Vol. 5040, No. 1, February 28, 2003, pages 724-733, XP002294500			
Examiner Signature		<i>[Signature]</i>		Date Considered	12/6/05

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
Examiner Name	Biba S. Carrillo				
Sheet	2	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
<i>bse</i>	A2	2004/0182422 A1	09/23/04	Boyd et al.	
<i>bse</i>	B2	3,953,265	4/27/76	Hood	
<i>bse</i>	C2	4,444,492	4/24/84	Lee	
<i>bse</i>	D2	4,838,289	06/13/89	Kottman et al.	<i>previously cited.</i>
<i>bse</i>	E2	5,102,494	4/7/92	Harvey et al.	
<i>bse</i>	F2	5,180,431	1/19/93	Sugimoto et al.	
<i>bse</i>	G2	5,807,522	09/15/98	Brown et al.	
<i>bse</i>	H2	5,830,334	11/03/98	Kobayashi	
<i>bse</i>	I2	5,882,433	03/16/99	Ueno	
<i>bse</i>	J2	5,945,351	08/31/99	Mathuni	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
<i>bse</i>	K2	WO 02/01613 A3	1/3/02	Applied Materials, Inc.		<input type="checkbox"/>
<i>bse</i>	L2	WO 02/32825 A1	4/25/02	The Regents of the University of California		<input type="checkbox"/>
	M2	WO 02/101795 A3	12/19/02	Verteq, Inc.	<i>previously cited</i>	<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
<i>bse</i>	N2	LIM et al., "Atomic Layer deposition of transition metals", Department of Chemistry and Chemical Biology, Harvard University, Nature Publishing Group, Volume 2, November 2003, Pages 749-754
<i>bse</i>	O2	ICKnowledge LLC, "Technology Background: Atomic Layer Deposition", ICKnowledge.com, 2004, Pages 1-7

Examiner Signature	<i>scull</i>	Date Considered	12/6/05
--------------------	--------------	-----------------	---------

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	3	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
<i>BSC</i>	A3	5,558,111	09/96	Lofaro	
	B3	5,601,655	02/11/97	Bok et al.	<i>previously cited</i>
	C3	5,660,642	8/26/97	Britten	<i>previously cited</i>
	D3	5,705,223	01/06/98	Bunkofske	<i>previously cited</i>
<i>BSC</i>	E3	5,709,757	01/98	Hatano et al.	
<i>BSC</i>	F3	5,807,522	09/15/98	Brown et al.	
<i>BSC</i>	G3	5,830,334	11/3/98	Kobayashi	
<i>BSC</i>	H3	5,882,433	3/16/99	Ueno	<i>previously cited</i>
<i>BSC</i>	I3	5,893,004	4/6/99	Yamamura	
	J3	5,945,351	08/31/99	Mathuni	<i>previously cited</i>

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
<i>BSC</i>	K3	JP08277486 (Patent Abstract in English provided)	10/22/96	Dainippon Printing Co. Ltd.		<input type="checkbox"/>
<i>BSC</i>	L3	JP05837190 (Patent Abstract in English provided)	03/04/83	Sonitsukusu: KK		<input type="checkbox"/>
<i>BSC</i>	M3	JP02280330 (Patent Abstract in English provided)	11/16/90	Mitsubishi Electric Corporation		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
<i>BSC</i>	N3	Machine generated English translation of JP08277486 (Reference K3)
<i>BSC</i>	O3	English Summary of JP05837190 (Reference L3)

Examiner Signature	<i>[Signature]</i>	Date Considered	12/6/05
--------------------	--------------------	-----------------	---------

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	4	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
BSC	A4	5,975,098	11/2/99	Yoshitani et al.	
BSC	B4	5,989,478	11/23/99	Ouellette et al.	
	C4	5,997,653	12/07/99	Yamasaka	<i>previously cited.</i>
BSC	D4	6,086,454	07/00	Watanabe et al.	
	E4	6,092,937	07/00	Snodgrass et al.	
	F4	6,108,932	8/29/00	Chai	
	G4	6,132,586	10/17/00	Adams et al.	
	H4	6,214,513	04/10/01	Cai et al.	
	I4	6,230,722	05/15/01	Mitsumori et al.	
BSC	J4	6,341,998	01/29/02	Zhang	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
BSC	K4	JP02309638 (Patent Abstract in English provided)	12/25/90	Fujitsu Ltd.		<input type="checkbox"/>
BSC	L4	JP11350169 (Patent Abstract in English provided)	12/21/99	Chemitoronics Co.		<input type="checkbox"/>
BSC	M4	JP 2003-151948 (Patent Abstract in English provided)	05/23/03	Seiko Epson Corporation		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
BSC	N4	Machine generated English translation for JP11350169 (Reference L4)
BSC	O4	"Chemical vapor deposition", Wikipedia, the free encyclopedia, http://en.wikipedia.org/wiki/Chemical_vapor_deposition , 2005, Page 1-2

Examiner Signature	<i>BSC</i>	Date Considered	12/6/05
--------------------	------------	-----------------	---------

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	5	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
<i>BSL</i>	A5	6,391,166	05/21/02	Wang	
	B5	6,398,975	06/04/02	Mertens et al.	<i>previously cited</i>
<i>BSL</i>	C5	6,417,117	07/09/02	Davis	
<i>BSL</i>	D5	6,488,040	12/03/02	De Larios et al.	
	E5	6,491,764	12/10/02	Mertens et al.	<i>previously cited</i>
<i>BSL</i>	F5	6,531,206	03/11/03	Johnston et al.	
<i>BSL</i>	G5	6,555,017	04/29/03	Rushford et al.	
	H5				
	I5				
	J5				

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
<i>BSL</i>	K5	EP 1 489 461 A1	12/22/04	ASML Netherlands B.V.		<input type="checkbox"/>
<i>BSL</i>	L5	EP 1 489 462 A2	12/22/04	ASML Holding N.V.		<input type="checkbox"/>
<i>BSL</i>	M5	WO 99/49504	9/30/99	Nippon Kogaku KK		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
<i>BSL</i>	N5	SIGMA-ALDRICH, "Atomic Layer Deposition (ALD)", http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films , 2005, Pages 1-2
	O5	

Unpublished U.S. Patent Applications

Examiner Initial	Cite No. ¹	Application Number	Filing Date	Name of Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
<i>BSL</i>	P5	10/742,303	12/18/03	Boyd et al.	
<i>BSL</i>	Q5	10/817,398	04/01/04	Korolik et al.	
<i>BSL</i>	R5	10/817,355	04/01/04	Woods	
Examiner Signature	<i>Stall</i>		Date Considered	<i>12/6/05</i>	

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	6	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A6				
	B6				
	C6				
	D6				
	E6				
	F6				
	G6				
	H6				
	I6				
	J6				

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
<i>b4</i>	K7	JP 11-31672 (Patent Abstract in English provided)	02/02/99	Hitachi Ltd.		<input type="checkbox"/>
	L7					<input type="checkbox"/>
	M7					<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N6	
	O6	

Unpublished U.S. Patent Applications

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
<i>b4</i>	P6	10/817,620	04/01/04	Woods		<input type="checkbox"/>
<i>b4</i>	Q6	10/817,133	04/01/04	Woods et al.		<input type="checkbox"/>
<i>b4</i>	R6	10/834,548	04/28/04	Hemker et al.		<input type="checkbox"/>
Examiner Signature	<i>[Signature]</i>			Date Considered	12/6/08	

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.